REMARKS

Claims 1-25 are pending in the current application. In an Office Action dated July 12, 2010, the Examiner rejected claims 17-20 under 35 U.S.C. §112, second paragraph, for failing to particularly point and distinctly claim the subject matter Applicants regard as the invention; rejected claims 1,4, 6-10, 13-17, 19-21, and 23-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,771,746 ("Shambaugh") in view of U.S. Patent 7,382,868 ("Moore"); rejected claims 2 and 3 under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 6,990,179 ("Merrow"); rejected claims 5, 18, and 22 under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 7,366,285 ("Parolkar"); rejected claim 11 under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 6,850,766 ("Lau"); and rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 5,774,525 ("Kanevsky"). Applicant's representative traverses these rejections.

Amendment to Claim 17

Claim 17 is amended in order to more particularly point out and distinctly claim the subject matter Applicant regards as the invention. Currently amended claim 17 also provides sufficient antecedent basis for dependent claims 18-20.

Response to Rejections under 35 U.S.C. §112, second paragraph

Currently amended claim 17 is no longer indefinite because currently amended claim 17 is directed to a medium with instructions encoded thereon that direct a processor to perform the operations described in the elements of claims 17-20.

Response to Rejections under 35 U.S.C. §103(a)

In rejecting claims 1, 17, and 21, the Examiner contends that primary reference Shambaugh in combination with Moore teach the elements of claims 1, 17, and 21. In particular, the Examiner argues that Shambaugh teaches all four elements of

claims 1, 17, and 21 except

> "Shambaugh does not specifically teach that this speech-to-text conversion process applies multiple interactive voice response (IVR) algorithms [Examiner is referring to the third claim element]. Moore teaches that the speech-to-text conversion process applies speech recognition algorithms (i.e., interactive voice response algorithms). Thus, it would have been obvious to one or ordinary skill in the art at the time the invention was made to modify Shambaugh to incorporate the feature of applying speech recognition algorithms by speech-to-text conversion process of Shambaugh's invention as taught by Moore."

In other words, the Examiner argues that Shambaugh teaches all four elements of the claims 1, 17, and 21 except Shambaugh does not teach using a plurality of interactive voice response algorithms. The Examiner attempts to remedy Shambaugh's apparent deficiency by citing Moore as teaching a plurality of interactive voice response algorithms. However, Applicant's representative contends that the Examiner has not demonstrated that all of the claimed elements of the current application can be found in the Examiner primary reference Shambaugh as argued by the Examiner. According to M.P.E.P. §2143 A, citing *KSR International Co. v. Teleflex Inc.*, in order

> [t]o reject a claim based on this rationale, Office personnel must ***articulate*** . . . a ***finding*** that the prior art included ***each element claimed***, although not necessarily in a single prior art reference, *with the only difference being the lack of actual combination of the elements in a single prior art reference*. (emphasis added)

M.P.E.P. §2143 A also states the "[t]he rationale to support a conclusion that the claim would have been obvious is that ***all the claimed elements*** were known in the prior art." In addition, "[i]f any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art."

In light of *KSR*, Applicant's representative contends that the Examiner has overlooked key differences between certain elements of the currently claimed invention and Shambaugh. By overlooking these key differences, the Examiner wrongly interprets Shambaugh to teach essentially the same methods as described in the claims of the current application. As explained below, although Shambaugh and the claims of the current invention have certain commonalities, the key differences identified below are

significant and make the claims of the current application patentable over the prior art cited by the Examiner.

Consider the Examiner's primary reference - Shambaugh. Shambaugh describes automated call handling and in particular describes

> "a first mode which provides for handling calls automatically, and a second mode which provides for assisting an agent and ***helping to optimize the agent's time***. These modes use speech recognition and speech synthesis technology. Particular embodiments may use text-to-speech synthesis and speech-to-text conversion." (emphasis added) (col. 3, lines 13-18)

The central concept of Shambaugh is to create a telephone experience where a call contact, the person with whom the telephone system is interacting, does not distinguish between the words uttered by the automated call handling system and an agent, which Shambaugh explains as follows:

> "In one embodiment, a call center creates one or a group of 'virtual agents.' Different pronunciations from a professional voice can be recorded and saved to be used when piecing together different scripts to create sounds as if a human voice is speaking. Speech recognition and speech synthesis, or in one embodiment speech-to-text conversion and text-to-speech conversion, can be used to allow the live agent to sound like the 'virtual agent.' (col. 3, lines 19-27)
>
> When an agent replies to a call contact using the agent's own voice the call contact may detect that the call contact has been previously talking to a machine, which some call contacts may dislike. *It may therefore be desirable to mask the voice of the agent so that the agent's voice matches the voice of the 'virtual agent.'* ***The virtual agent can mask the live agent's voice by having what the agent says translated to text by speech recognition such as, in one embodiment, speech-to-text conversion. The text produced can then be spoken to the caller by using the same speech synthesis technology, which in one embodiment can be text-to-speech technology, used when the original script was spoken. In this way agents can sound like any of the "virtual agents" created by the call center and a particular live agent is no longer tied to a call.***" (emphasis added) (col. 3, lines 28-42)

In other words, Shambaugh teaches a method for making a live agent sound like the voice used to talk to the call contact using speech-to-text and text-to-speech conversion. When the live agent responds to an unexpected, or off script, statement or question posed by the call contact, the agent's response is converted into text and then converted back into

speech but in the voice used by the automated system enabling the caller to perceive an uninterrupted dialog with the automated system. Shambaugh provides an example dialog between a call contact and the automated system in col. 4, lines 12-67, relevant portions of which are now cited:

> "***The computer in one embodiment can respond to the call contact, indicating that the call contact's response was not understood, while it routes the call to a live agent to be handled correctly***. For example: the computer can be programmed to respond, "Sorry I did not completely hear what you said, could you please repeat it again?" This response can allow time for the call to be routed to an agent. ***The call contact can then repeat the unknown response with the live agent listening to the call.*** When the call is routed to the agent in this embodiment, the script text that the computer was speaking when the unexpected response was given can also be sent to the agent. The text already spoken can be highlighted so that the agent will know what has been spoken to the call contact." (emphasis added) (col. 4, lines 12-26)

Shambaugh then provides an explicit example of the technique describes in col. 4, lines 12-26 in col. 4, lines 41-67 as follows:

> The table below recites an example of a dialog using one embodiment. An outbound call has been completed to a live person.
> Text-to-speech: Hello, may I please speak with Mr. Doe?
> Call Contact: Please wait while I get him.
> Call Contact: Hello, this is Mr. Doe.
> Text-to-speech: Hello Mr. Doe this is Jon with Alexander Bell. How are you doing today?
> Call Contact: Fine.
> Text-to-speech: Good. I am calling you today to talk to you about our new local service offer. More text/speech explaining local service is given . . . . To switch you to this new plan all I need is your permission.
> ***Call Contact: Don't you offer long distance service also, and how can I bundle local and long distance together?*** *Unexpected Response--forward the call to an agent.*
> Text-to-Speech: I'm sorry I did not completely hear your question, could you please say it again?
> Call Contact: Don't you offer Long distance service also, and how can I bundle local and long distance together?
> ***Agent: Sorry, we don't offer long distance yet.*** *Completes response and then sends the live person back to the computer.*
> Text-to-Speech: Thank you. Alexander Bell appreciates your business." (emphasis added)

In other words, Shambaugh teaches a method for handling an *unexpected* response during a dialog between the call contact and the automated system by stopping the script, creating a delay that enables a live agent time to listen to, or review, the call contact's unexpected response. The live agent provides an appropriate answer to the call contact's unexpected response and then returns the call contact back to script. Shambaugh also describes in col. 7, lines 30-39, with reference to Figure 4 of Shambaugh, a method for maintaining the synthesized voice heard by the call contact even though the agent is speaking:

> "Control passes then to a receive live agent voice input process (430), in which the live agent speaks into an apparatus (such as, for example, a microphone) a reply appropriate to the response of the call contact to the prepared script. ***Upon receiving live agent voice input, control passes to a make extemporaneous script process (440) in which the live agent voice input is converted to synthesized speech to preserve the call continuity and avoid the perception that a different person is speaking***." (emphasis added)

In other words, Shambaugh does not teach or suggest turning the conversion over to he live agent to complete the conversation with the call contact.

By contrast, the first three elements of claims 1, 17, and 21 are described in Shambaugh. However, Shambaugh does not teach or suggest the fourth element of

> "connecting the contact to a human operator ***after a predetermined portion of the out-calling dialog with the contact is completed***"

In other words, claims 1, 17, and 21 connect the contact to a human operator when a preset portion of the out-calling dialog is completed. Page 9, lines 8-24 of the current application provide an example of a predetermined dialog:

> "The following is one of many possible out-calling system 102 ***dialogs*** which may be presented to the contact 108. The dialog can start with a greeting and a probing question to see whether the called party is still online, such as, "*Hello. This is Roby from the Sphinx bank. How are you doing today sir?*" The contact 108 might say something here or hang up on the call. If the contact 108 hangs up, the call is terminated and another contact is called. If the contact 108 is still on the line, the out-calling system can say, "*The reason I am calling today is to follow up with you regarding the product you purchased from us. We would like to get your feedback on the product. Are you willing to stay on the line with us for 3 to 5 minutes to provide feedback?*" The contact 108 may express interest or not. If no interest is detected then a "*thank you*" message is played for the contact 108

> wherein the contact may be asked if the out-calling system 102 can call later and at what time. *If the contact 108 expresses interest, then the system 102 keeps the contact 108 engaged in the conversation while the call is being handed over to the operator 118*, by saying, "*Thank you sir. We would like to explain the process to you while a qualified operator is being selected to conduct the survey with you. We usually conduct this feedback to . . .*" (emphasis added)

This example dialog demonstrates that once a series of predetermined questions and possible responses from the contact have been completed, the conversation is turned over to a human operator who completes the phone conversation with the contact.

Shambaugh does not teach or suggest connecting a call contact with a live agent "after a predetermined portion of the out-calling dialog with the contact is completed" or an equivalent operation. Instead, as explained above in the cited portions of Shambaugh, Shambaugh teaches connecting the call contact to a live agent only when the call contact provides a response for which none of the scripts can provide an answer. (See e.g., col. 4, lines 12-26 and lines 44-65). In other words, the dialog presented in col. 4, lines 40-67 connects the call contact to the live agent only when the call contact provides an unexpected response in lines 56-57. Shambaugh does not teach or suggest that a *predetermined* portion of the dialog is completed before the agent is connected to the call contact.

Thus, claims 1, 17, and 21 are patentable over Shambaugh in view of Moore, because Shambaugh and Moore fail to teach or suggest all of the claim elements of claims 1, 17, and 21.

Claim 16 of the current application also includes the four elements of claim 1, 17, and 21. For the same reasons argued above with respect to claims 1, 17, and 21, claim 16 is also patentable over Shambaugh in view of Moore.

Claims 2-16, 18-20, and 22-23 are patentable over Shambaugh in view of Moore because they depend from patentable base claims 1, 17, and 22.

Applicant's representative is mystified by the Examiner's rejection of claim 24. In particular, the Examiner's argues that the same basis for rejecting claim 16 can also be used to reject claim 24. First, claim 16 is directed to a method and claim 24 is directed to a system. Second, the Examiner argues that

> "Claim . . . 24 [is] rejected for the reasons as discussed above with respect to claims 1, 5, 7, and 13."

Claims 5, 7, and 13 are dependent claims of the method of claim 1 and do not include the same elements as claim 24. In particular, the system of claim 24 includes a contact, a dialog database, a call manager, and an interactive voice response module. None of these elements are common to the elements of claims 1, 5, 7, and 13. Third, the arguments provided by the Examiner against the patentability of claims 5, 7, and 13 are with reference to methods and not to components of a system.

Thus, because the Examiner has not provided evidence and a proper analysis for rejecting claim 24, claim 24 is also patentable over the prior art cited by the Examiner.

Claim 25 is patentable because it depends from allowable claim 24.

In Applicant's representative's opinion, all of the claims remaining in the current application are clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
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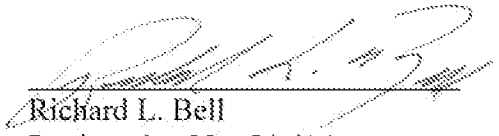

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